

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

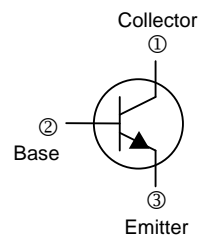
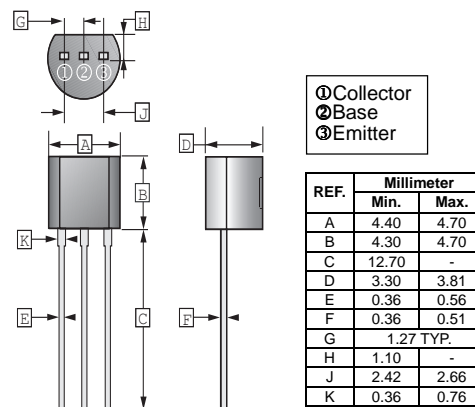
FEATURE

- Power Dissipation

CLASSIFICATION OF h_{FE}

Product-Rank	BC546A	BC546B	BC546C
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Range	110~220	200~450	420~800

TO-92



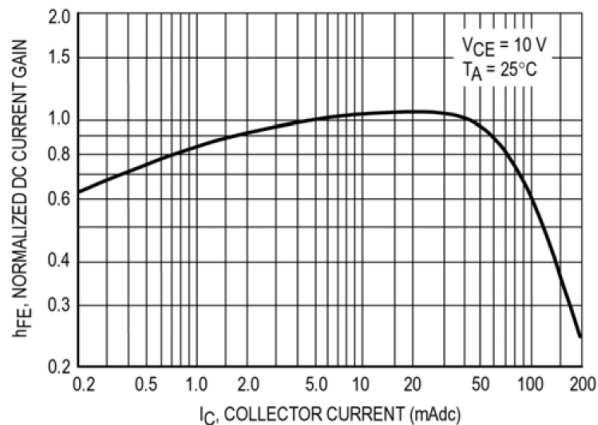
ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	80	V
		50	
		30	
Collector to Emitter Voltage	V_{CEO}	65	V
		45	
		30	
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current - Continuous	I_C	100	mA
Total Device Dissipation	P_D	625	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

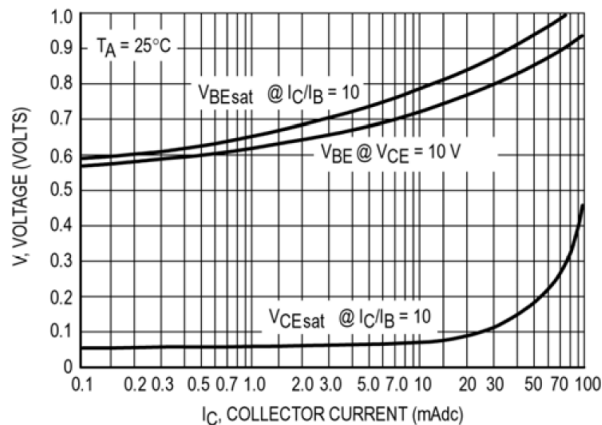
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	BC546	80	-	-	V	$I_C=100\mu\text{A}, I_E=0$
	BC547	50	-	-		
	BC548	30	-	-		
Collector to Emitter Breakdown Voltage	BC546	65	-	-	V	$I_C=1\text{mA}, I_B=0$
	BC547	45	-	-		
	BC548	30	-	-		
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=10\mu\text{A}, I_C=0$
Collector Cut-Off Current	BC546	-	-	0.1	μA	$V_{CB}=70\text{V}, I_E=0$
	BC547	-	-	0.1		$V_{CB}=50\text{V}, I_E=0$
	BC548	-	-	0.1		$V_{CB}=30\text{V}, I_E=0$
Collector Cut-Off Current	BC546	-	-	0.1	μA	$V_{CE}=60\text{V}, I_B=0$
	BC547	-	-	0.1		$V_{CE}=45\text{V}, I_B=0$
	BC548	-	-	0.1		$V_{CE}=30\text{V}, I_B=0$
Emitter Cut-Off Current	BC546	-	-	0.1	μA	$V_{EB}=5\text{V}, I_C=0$
	BC547	-	-	0.1		
	BC548	-	-	0.1		
DC Current Gain	h_{FE}	110	-	800		$V_{CE}=5\text{V}, I_C=2\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.3	V	$I_C=100\text{mA}, I_B=5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1.1	V	$I_C=100\text{mA}, I_B=5\text{mA}$
Transition Frequency	f_T	150	-	-	MHz	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=100\text{MHz}$

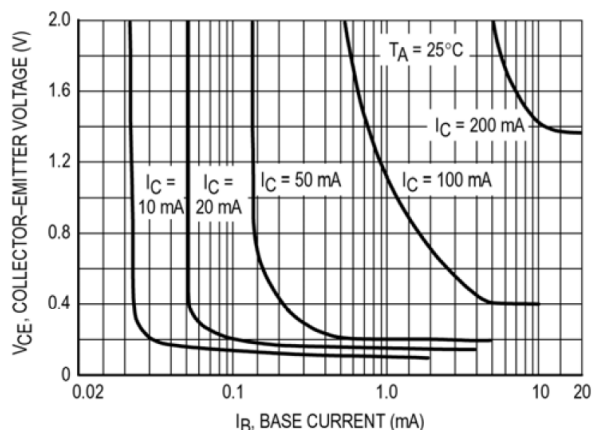
CHARACTERISTIC CURVES



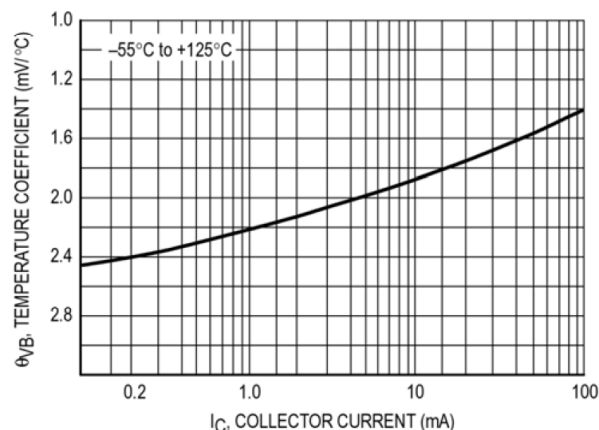
Normalized DC Current Gain



"Saturation" and "On" Voltages

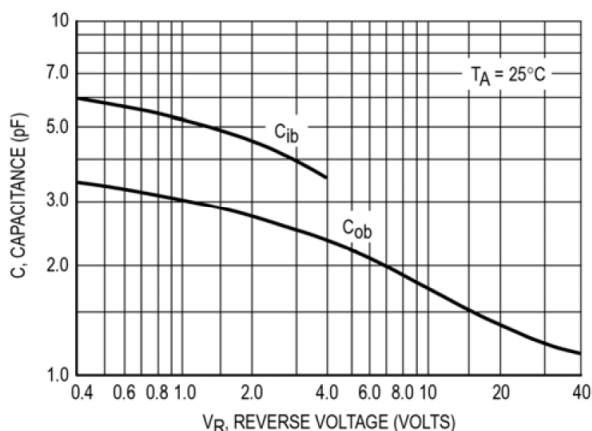


Collector Saturation Region

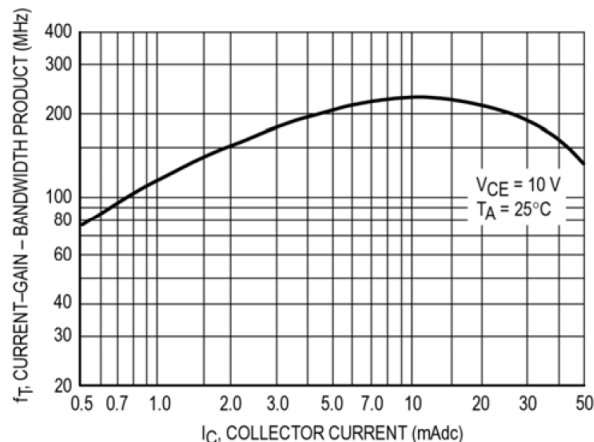


Base-Emitter Temperature Coefficient

BC547/BC548



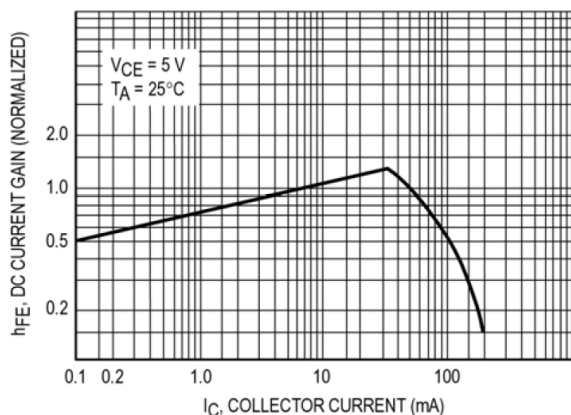
Capacitances



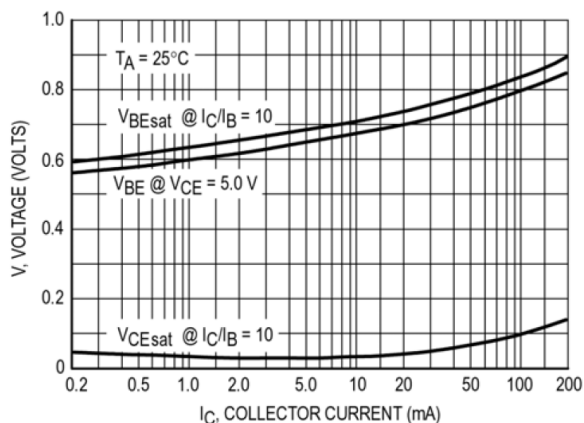
Current-Gain - Bandwidth Product

CHARACTERISTIC CURVES

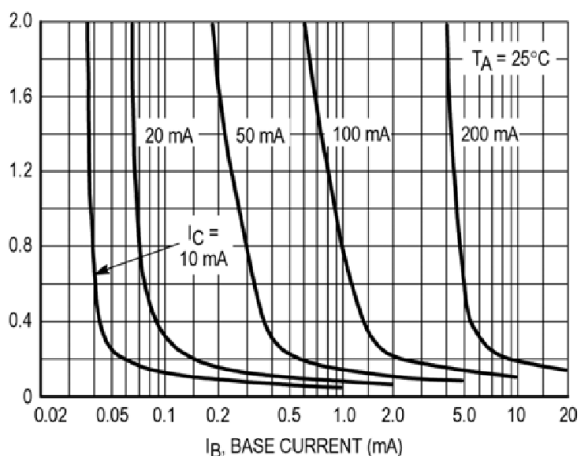
BC547/BC548



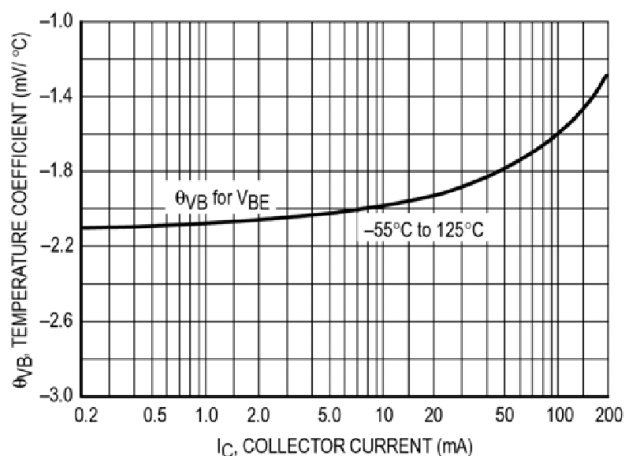
DC Current Gain



"On" Voltage

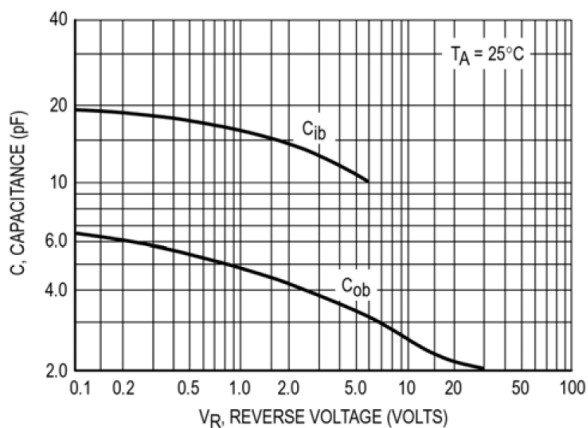


Collector Saturation Region

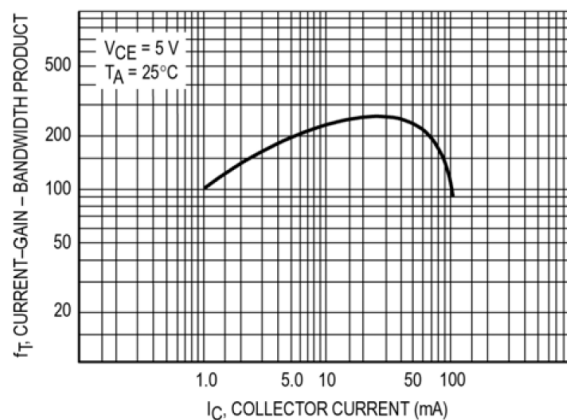


Base-Emitter Temperature Coefficient

BC546



Capacitance



Current-Gain - Bandwidth Product